

micrometers.

5. The integrated circuit of claim 2 wherein said visual display element comprises an array of semiconductor pixels having diameter dimensions of less than 20 micrometers.

6. The integrated circuit of claim 3 wherein said visual display element comprises an array of semiconductor pixels having diameter dimensions of less than 20 micrometers.

REMARKS

Drawings

The examiner objected to the drawings under 37 CFR 1.83(a) because "they fail to show the cross sectional view of Figure 1 illustrating the sensor, the visual display, the pixel(s) and the logic circuit over the substrate, as described in the specification."

For reference, 37 CFR 1.83(a) is reproduced herein:

(a) The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box).

Applicant hereby traverses the requirement that a cross sectional view of the invention is required by 37 CFR 1.83(a) because such a cross sectional view is not necessary for an understanding of the invention. Figure 1 clearly shows a visual display 6, a logic circuit 8, and a sensor element 10. To make the Figure 1 even more clear, applicant is submitting herewith an amended Figure 1 with a proposed drawing correction marked in red, labeled as "PROPOSED CORRECTION", in which the logic circuit and sensor element are labeled for clarity. It is believed that any further detailed illustration is not essential for a proper understanding of the invention.

Specification

The examiner objected to the Abstract of the Disclosure. Applicant has provided a new Abstract of the Disclosure herein. It is therefore believed that the objection is overcome.

The examiner objected to disclosure with respect to the discussion of US Patent No. 5,363,952. The passage in question has been deleted from the specification. It is therefore believed that the objection is overcome.

Claim Objections

The examiner objected to claim 1 for informalities. Claim 1 has been amended herein to correct the informalities. It is believed the objection is overcome.

Claim Rejections - § 112

The examiner rejected claims 4-6 under 35 USC § 112 as being indefinite. Specifically, the examiner indicated that it was not clear whether the dimensions of the pixels “are taken in terms of diameter of a pixel or distance between pixels.” Claims 4-6 have been amended herein to clarify that the dimensions refer to pixel diameter. It is believed the rejection is overcome.

Claim Rejections - § 102

The examiner rejected claims 1-3 and 7 under 35 USC § 102(b) as being anticipated by 3,757,511 (Burgess et al.). Independent claim 1 has been amended herein to include the limitation of “*said sensor element for providing an input to said logic circuit in response to a mechanical actuation of said sensor element.*” This limitation is absent from Burgess, which shows that the sensing element is a photo detector 34, not a mechanically actuatable element. Support for the amendment is found at least on page 4, lines 26 and 27 “the input device may be a strain gauge, pressure gauge or pressure sensor” which are mechanically actuatable. It is therefore believed that the rejection to independent claim 1 and its dependent claims is overcome.

Claim Rejections - § 103

The examiner rejected claim 4-6 under 35 USC 103(a) as being unpatentable over Burgess in view of Ogiwara (6,222,208 B1). It is believed that the amendment to independent claim 1 overcomes the rejection since the combined references do not teach “*said sensor element for providing an input to said logic circuit in response to a*

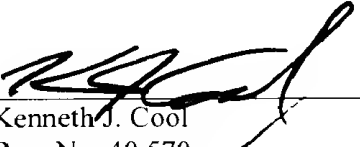
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mechanical actuation of said sensor element." As discussed in MPEP § 2143, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Since this limitation is not taught in either reference, it is believed the rejection is overcome.

CONCLUSION

In light of the foregoing, reconsideration and allowance of the claims is hereby earnestly requested.

Respectfully submitted,
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PAGE SHOWING CLAIMS AMENDMENTS

1. (amended) An integrated circuit with a micromechanical element comprising a support substrate supporting a sensor element, a logic circuit and a semiconductor visual display element, the sensor element electrically connected to [a] the logic circuit, and the logic circuit being electrically connected to the semiconductor visual display element, said sensor element for providing an input to said logic circuit in response to a mechanical actuation of said sensor element.

4. (amended) The integrated circuit of claim 1 wherein said visual display element comprises an array of semiconductor pixels having diameter dimensions of less than 20 micrometers.

5. (amended) The integrated circuit of claim 2 wherein said visual display element comprises an array of semiconductor pixels having diameter dimensions of less than 20 micrometers.

6. (amended) The integrated circuit of claim 3 wherein said visual display element comprises an array of semiconductor pixels having diameter dimensions of less than 20 micrometers.